

array sensor in which only a portion is used for wall thickness measurement in accordance with the present invention.--

IN THE CLAIMS

Amend claims 1, 5, 9 and 19 as follows:

1. (Amended)

1 A method of measuring wall thickness of a transparent cylindrical container
2 that comprises the steps of:
3 (a) moving the container transversely along a defined path while
4 simultaneously rotating the container about its axis,
5 (b) directing onto a wall of the container, as it rotates and translates in said
6 steps (a), a line-shaped light beam having a long dimension perpendicular to the axis of
7 the container and parallel to the direction of translation of the container,
8 (c) directing onto a light sensor light energy reflected from portions of outer
9 and inner wall surfaces of the container that are nearest to said sensor, and
10 (d) measuring container wall thickness as a function of separation at said
11 sensor between said light reflected from said outer and inner wall surfaces.

5. (Amended)

1 A method of measuring wall thickness of transparent cylindrical containers

2 that comprises the steps of:

3 (a) moving the containers transversely along a defined path and
4 simultaneously rotating the containers about their central axes,

5 (b) directing light energy onto each container traveling in said path in a plane
6 at an angle to the axis of the container such that a portion of the light energy is reflected
7 from an outer surface of the container wall and a portion is refracted into the container wall
8 and reflected from an inner wall surface,

9 (c) directing into a light sensor portions of the light energy reflected from the
10 outer and inner wall surfaces along a light path coplanar with the incident light energy and
11 with said axis, and

12 (d) measuring wall thickness of each container as a function of separation at
13 said sensor between said light portions reflected from the inner and outer wall surfaces of
14 the container.

9. (Amended)

1 Apparatus for measuring wall thickness of a container, which comprises:
2 a conveyor for moving the container transversely of its axis through an
3 inspection station and simultaneously rotating the container about its axis,
4 a light source and an illumination lens system for directing onto a wall of the
5 container, as it passes through said inspection station, a line-shaped light beam having a
6 long dimension perpendicular to the axis of the container and parallel to the direction of
7 movement of the container through the inspection station.
8 a light sensor and an imaging lens system for directing onto said sensor light
9 energy reflected from portions of the outer and inner wall surfaces that are nearest to said
10 sensor, and
11 an information processor responsive to light energy directed onto said light
12 sensor by said imaging lens system for determining thickness of the container between
13 said outer and inner wall surfaces.

19. (Amended)

1 The apparatus set forth in claim 18 further comprising a mirror disposed at
2 said focus of said spherical lens, and a motor coupled to said mirror for controlling direction
3 of illumination light energy through said fresnel and cylinder lenses.
